

ABSTRACT OF THE INVENTION

A substrate of glass, ceramic, plastic and metal, or a glazed or enamelled substrate, with a self-cleaning and/or hydrophobic surface. The substrate having disposed thereon a coating that includes a plurality of particles affixed to the surface of the substrate by a binder. The particles are preferably of nanoscale size and extend outwardly from a surface of the coating to form a nano-rough surface. The nano-rough surface causes a hydrophobic or water repellent effect. The binder can be formed from an organic or an inorganic material and operates to fix the plurality of particles to substrate surface.